



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN FIELD SHEET

January 2022

Meter Passed End

of Day CCV

Yes / No



WIN Station Name: Kings Lake **Date:** 6/21/2022

WIN/Field ID: G4NW0537 **WBID:** 266A **ENR:** **Latitude:** 30.78349

County: Walton **Org ID:** 21FLPNS **Longitude:** -86.18961

Receiving Body of Water: Yellow River **RQ:** 2022-06-20-43

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Frank Butera		☒		☒	
☒	Nathan Mulkey	☒		☒		
☐						
☐						

Sampling Equipment	
☐ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☒ Syringe	☐ Pole
Depth measured with: Meter	
Secchi Equipment ID:	
Collection Method	
☐ Wading	☒ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☐ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# 154179 (PRODSS)					
Photos: YES		Flow:		Tide:		Tide Times: High: Low:					
Biological Samples Collected: ☐ None ☒ HA ☐ SCI ☐ RPS ☐ Algae ID ☐ LVS ☒ LVI Other:											
SBIO ID Numbers: Visit ID 84840. HA ID 17942. Macro ID 12207											
Notes:											

Duplicate Sample

Time Zone: CEN	Time:	Field ID:	(WIN ID_DUP)
WIN DMT Activity ID:			

Blank

Time Zone:	Time:	Field ID:	(Blank Type_DDMMYYYY)
DI Source:	Location:		
DI Type:	Equipment ID:		
DI Container (Name/ID):		DI Container Type:	

LIMS EVENT ID: 2336739 WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: (Initials/Date) QC Station ID, Field Parameters In LIMS DMT: (Initials/Date)

Scan/Save Field Sheets FB / 7/27/2022 Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)



RQ-2022-06-20-43
Customer: NW-DIST
Project ID: STRATEGIC MONITORING PLAN

Collected By: Frank Butera, Nathan Mulkey
Field Report Prepared By: Frank Butera
Sampling Agency: FDEP

Place Label Here						Comments: Field Blank not collected.				
WIN ID/Field ID: G4NW0537										
Location: Kings Lake										
Matrix: Fresh						(Check one) ☒ GRAB ☐ COMPOSITE				
Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPTH)
6/21/2022	1200 CEN	7.1	98.4	32.9	6.05	0.3	2.4 ☐ VOB (S)	2.9	18.9	0.01
	1213	7.1	96.2	31.7	5.96	2.0	Central Lab please use top row for login purposes		18.8	0.01
	1215 CEN	6.92	94	31.8	5.52	2.4			19.7	0.01
Parameter Suite		Parameter Methods				Preservation		pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☒ H2SO4*		☐ <2	1	A
		Lot #	1308030		Exp:	12/1/22				
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☐ HNO3*		☒ <2	1	A
		Lot #	1286110		Exp:	11/16/22				
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A
		Filter Lot #				Syringe Lot #				
BOD (BP-1L)		☐ OV-BODUNIN				☐ Ice				
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	A
Physical/Aggregate (Fresh) (P-1L)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice			1	A
Physical/Aggregate (Marine) (P-1L)		☐ Alkalinity / W-F / W-TSS / TURBIDITY				☐ Ice				
Macroinvertebrates (PJ-2L)		☐ MI-FW-QLDC				☐ Formalin				
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice				
Microbiology (Contract Lab Bottle)		☐ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab				☐ Ice				
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐				☐ Ice				
Tracers (BG-500ML)		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice		MCAA Exp.		
Pesticides (BG-500ML) (BG-1L)		☐ W-E8321-DI ☐ WE8321-MS ☐ W-PSNP-TQ ☐ W-CT-Cl-R ☐ W-PCL-TQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution) ☐ W-TR-SQ-R ☐ W-PCB-TQ-R				☐ Ice		MCAA Lot#		
Phytoplankton/Periphyton		☐ DTY-QN-C ☐ PKD-QN-C				☐ Ice				
Name: Frank Butera Nathan Mulkey						Signature:			Date: 06/21/2022	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

Site Name Kings Lake (Z1-LL-16015)

Date: 06/21/2022

WIN-ID G4NW0537

Field ID G4NW0537

Project: TMDL Studies / Status Large

Visit ID 84840

RQ: 2022-06-20-43

Macro ID 12207

LIMS ID: 2336739

HA ID 17642

WBID: 266A

☒ LVI

☒ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial FB, 7/21/22

☒ Date and Initial QA: 7/26/22 JJ HA Score 65

☒ LVI entered in SBIO Initial FB, 7/21/22

☒ Date and Initial QA: 7/26/22 JJ

☒ Plants getting verified

☒ Date submitted: In House

☒ Plants verified

☒ Date returned: In House

☒ Macro ID authorized in SBIO

☒ Date and Initial: 7/26/22 - FB

☒ Macro ID score: 52

☒ If SMP, scanned into database

Notes:

Sampled for SMP / TMDL Studies. Data to be used for Ambient Status Large Lakes Z1-LL-16015.

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 84840 MACROPHYTE ID: 12207 LATITUDE: N 30.783556
COUNTY: Walton (Defuniak Springs) STORET #: G4NW0537 LONGITUDE: W -86.18958
DATE: 06/21/2022 TIME: 10:40 AM SAMPLING AGENCY: FL DEP - NWROC
SITE NAME: Kings Lake (Also 21-82-16015 status) WBID: 266A
FIELD ID/NAME: G4NW0537 LAKE SIZE: 190 RQ: 2022-06-20-43

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category - from GIS):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
☒	☒	☒	☒	☒	☒	☐	☐

Local Watershed Erosion (select one): ☐ None ☐ Slight ☒ Moderate ☐ Heavy

Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☐ Moderate ☒ Heavy

Artificially Impounded: ☒ Yes ☐ No

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)

LDI: 5.26

Land Use Source & Year: 33040046 SBIO, 2012

STORMWATER INPUTS

Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place
20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1

LAKESIDE ALTERATIONS

Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected)	Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected)	Many structures, roads or other human disturbance visible (50%-70% lakeside affected)	Highly developed or disturbed (>70% of lakeside affected)
20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1

BUFFER ZONE

Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer	< 29% of shoreline with >18m buffer
20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water:

Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☐ Yes ☐ No pH < 2 ☐ No

Color Sample Taken? ☒ Yes ☐ No Lot # _____ Exp. Date: _____

Alkalinity Sample Taken? ☒ Yes ☐ No

Water Level ☐ Low ☒ Normal ☐ High

Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____

Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____

Meter Readings:

Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)
Top: 0.3	32.9	6.05	7.1	96.4	18.9	0.01
Mid-Depth: 2.0	31.7	5.96	7.1	96.2	18.8	0.01
Bottom: 2.4	31.8	5.52	6.92	94.0	19.7	0.01

Meter ID: 154179

Clarity: ☐ Clear ☒ Opaque ☒ Turbid ☒ Slightly Turbid

Color: ☐ Clear ☐ Tannic ☒ Green

SECCHI (M) 2.4 Total Station Depth (M) 2.9

VOB ☐

Sediment Type: (may check more than one)

☐ Sandy ☒ Organic fibrous (peaty, CPOM) ☒ Sand/Silt ☐ Organic smooth (muck)

Sample Taken? ☐ Yes ☒ No

☒ Vegetated ☐ Other (Specify): _____

Sediment Odors: ☒ Normal ☐ Anaerobic ☐ Other (Specify): _____

Biological Communities:

LVI Conducted? ☒ Yes ☐ No

Phytoplankton Sample Taken? ☐ Yes ☒ No

Sample Preserved? ☐ Yes ☒ No

Lot #: _____ Exp Date: _____

Algal Bloom/Algal ID Sample Taken? Yes ☐ No ☒

Active Vegetation Mgmt? ☐ Yes ☒ No ☐ Don't Know

Abundance:

	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☒
Nuisance Plants	☐	☐	☐	☒
Submersed Plants	☐	☐	☐	☒
Exotic Apple Snails	☒	☐	☐	☐

Additional Notes:

Replaces Storet 33040046.

Tablet had issues w/ heat

Also for status

Weather Conditions: HOT! 108° F Heat Index 21-82-16015

SAMPLING TEAM: Frank Butera, Nathan Mullkey SIGNATURE: [Signature] DATE: 6/21/22

DEP Form FD 9000-6: Lake Habitat Assessment Field Sheet

ORET STATION NUMBER: G4NW0357	DATE (M/D/Y) <u>06/21/22</u>	LAKE NAME Kings Lake		FIELD ID / NAME G4NW0357																	
WBID: 266A	COUNTY: Walton	SAMPLING LOCATION/DESCRIPTION: Twin Lakes Camp, Defuniak Springs		LAKE SIZE: 190 Acres																	
PARAMETER HYDROLOGY	No surface inflow or outflow present, very long water residence time, groundwater seepage dominates ☐	Surface water inflow present, but flow is rare, moderate to long water residence time ☐	Surface water inflow and outflow present (or outflow only), sometimes with visible flow, short water residence time ☐	Impounded, hydrology of system artificially controlled ☒																	
Color	Very clear, uncolored water (benthic sampling appropriate) ☐	Water somewhat tannin stained (benthic sampling appropriate) ☒	Dark, discolored water (water color 20 PCU or higher) ☐	Visibility extremely reduced due to high color ☐																	
	Optimal	Suboptimal		Marginal																	
Secchi	Secchi >3 m Or VOB	Secchi(m)	3	2.6	2.2	1.8	1.4	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1				
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Vegetation Quality	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa ☒	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants ☒		Large masses (21%-40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats ☒		Lake choked (>40%) with nuisance macrophytes (duckweed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed) ☐															
Stormwater Inputs	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation ☒	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place ☒		Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place ☒		Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place ☐															
Bottom Substrate Quality	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present ☒	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present ☒		Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom ☒		Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom ☐															
Lakeside Adverse Human Alterations	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) ☒	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected ☒		Many structures, roads or other human disturbance visible (50%-70%) lakeside affected ☒		Highly developed or disturbed (>70% of lakeside affected) ☐															
Upland Buffer Zone	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer ☒	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer ☒		50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer ☒		< 29% of shoreline with >18m buffer ☐															
Adverse Watershed Land Use	Score the potential effects from adverse human land uses, based on a continuum of amount and type, with least to most adverse as follows: Native vegetation, Silviculture, Pasture or Citrus, Low Density Residential, Row Crops, Commercial, High Density Residential, Urban, Industrial ☒																				
TOTAL SCORE	65																				
COMMENTS:																					

ANALYSIS DATE: <u>6/21/22</u>	ANALYST: <u>F. Butler</u>	SIGNATURE: 
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SBIO Sample ID: 84840

HA ID: 17642

QC: _____

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Kings Lake				County: Walton (Defuniak Springs)				Date: 2/24/22			
Analyst: F. Butera				Signature: <i>[Signature]</i>				STORET: G4NW0537			
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLEPPC invasive exotic.											
It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.											
SBIO ID: 84840				Macro ID: 12207				Lake units sampled (circle one group): 1, 4, 7, 10 2, 5, 8, 11 3, 6, 9, 12			
SPECIES				SPECIES				SPECIES			
Acer rubrum	1	4	7	10	Collect ed? (✓)	Habenaria repens	1	4	7	10	Collect ed? (✓)
Alternanthera philoxeroides	1	4	7	10		Hydrilla verticillata					
Andropogon sp.		1	1	1		Hydrocotyle sp.	1	1	1	1	
Azolla filiculoides (A. caroliniana)						Hygrophila polysperma					
Baccharis sp.						*Hypericum fasciculatum					
Bacopa caroliniana	D	D	D	D		*Hypericum hypericoides					
Bacopa monnieri						*Hypericum myrtifolium	1	1	1	1	
Bidens laevis <i>albana</i>	1	1	1	1		Ilex cassine					
Bidens mittis <i>nitida</i>	1	1	1	1		Ipomoea aquatica	1				
Blechnum serrulatum						Ipomoea sagittata					
Boehmeria cylindrica	1		1			Itea virginica					
Brasenia schreberi						Juncus effusus	1	1	1	1	
Cabomba caroliniana						*Juncus marginatus	1	1	1	1	
Casuarina equisetifolia						*Juncus megacephalus	1				
Centella asiatica			1			Juncus repens	1				
Cephaanthus occidentalis						*Juncus scirpoides	1	1	1	1	
Ceratophyllum demersum						Lachnanthes caroliniana	1	1	1	1	
Chara sp.						Leersia hexandra					
Cladium jamaicense						Landoltia punctata					
Cliftonia monophylla						Lemna sp.					
Colocasia esculenta			1	1		Leucothoe racemosa (E. racemosa)					
Commelina						Limnium spongia					
Cornus americana						Limnophila sessiliflora					
*Cyperus alternifolius (C. involucratus)						Liquidambar styraciflua					
Cyperus articulatus						*Ludwigia arata <i>grandiflora</i>	1	1	1	1	
Cyperus haspan						*Ludwigia leptocarpa					
*Cyperus lecontei						*Ludwigia linearis					
*Cyperus polystachyos						*Ludwigia octovalvis					
*Cyperus odoratus						*Ludwigia peruviana	1	1	1	1	
*Cyperus surinamensis						*Ludwigia repens					
Cyrtilla racemiflora	1	1	1	1		*Ludwigia suffructuosa					
Decodon verticillatus						Luziola fluitans (H. carolinensis)					
Diodia virginiana						Lyonia lucida					
*Echinochloa crus-galli						Magnolia virginiana	1				
*Echinochloa muricatum						Mayaca fluviatilis					
Echinochloa walteri						Melaleuca quinquenervia					
Eclipta prostrata (E. alba)						Micranthemum glomeratum					
Egeria densa						Micranthemum umbrosum					
Eichhornia crassipes						Mikania scandens					
*Eleocharis baldwinii	1	1	1	1		Mimosa pigra					
*Eleocharis						Myrica cerifera	1	1	1	1	
Eleocharis cellulosa						Lycopodium	1	1	1	1	
Eleocharis equisetoides						Lycopodium					
Eleocharis interstincta						Canina indica					
*Eriocaulon compressum						Salvia - 8/01					
*Eriocaulon decangulare						Birch					
Eupatorium capillifolium	1	1	1	1		Rubus					
Euphorbia						Erica					
Euphorbia scirpoides						Erica					
Gordonia lasianthus						Erica					
LIMS ID: 2336739						Erica					

FORM D-5000-27 LAKE VEGETATION INDEX FIELD SHEET						Date: 8/21/92	S BIO ID: 81840	Macro ID: 12207			
Waterbody: Kings Lake Storet: G4NW0537											
SPECIES	1	4	7	10	Collect ed? (✓)	SPECIES	1	4	7	10	Collect ed? (✓)
*Myriophyllum aquaticum						Salix caroliniana					
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius					
*Najas guadalupensis						*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)					
Nuphar sp.						Scirpus cyperinus					
Nymphaea odorata						*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.					
Panicum hemitomon						Thalia geniculata					
Panicum repens						Thelypteris palustris - palustris					
Paspalidium geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.					
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia gibba (U. biflora)					
Persea sp.						*Utricularia floridana					
Pennisetum purpureum						*Utricularia foliosa					
ragmites australis						*Utricularia inflata					
Pinus elliotii						*Utricularia purpurea					
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*Polygonum hydropiperoides						*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphag. trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata						Woodwardia virginica - araliacea					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuck. pectinatus)						Rhus copallina - No Cont!					
Proserpinaca pectinata						vitis					
*Rhexia marma						Muhlenbergia cordata					
*Rhynchospora corniculata						etc. Saba (pa C?)					
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis sp. (SAU)											
Sagittaria lancifolia											
Sagittaria latifolia											
Equis											

*Schoenoplectus tabernaemontani = Scirpus validus

[illegible]

DEP-SOP-001/01
FS 7000 General Biological Community Sampling

Form FD 9000-2: COMPOSITE LAKE SAMPLING SHEET (< 1000 ACRES)

Date: 06/21/22		Name of Lake: Kings Lake		Gear used: ☒ PONAR ☐ EKMAN ☐ OTHER	
Comments:					
Drop #	Depth (m)	Sediment Type (circle all that apply)	Drop #	Depth (m)	Sediment Type (circle all that apply)
1		sand, silt/clay, CPOM, muck, SAV	7	Fish Feeder	sand , silt/clay , CPOM , muck , SAV
2		sand, silt/clay, CPOM, muck, SAV	8		sand, silt/clay, CPOM, muck, SAV
3		sand, silt/clay, CPOM, muck, SAV	9		sand, silt/clay, CPOM, muck, SAV
4		sand, silt/clay, CPOM, muck, SAV	10	2.9	sand , silt/clay , CPOM , muck , SAV
5		sand, silt/clay, CPOM, muck, SAV	11		sand, silt/clay, CPOM, muck, SAV
6		sand, silt/clay, CPOM, muck, SAV	12		sand, silt/clay, CPOM, muck, SAV

CPOM = coarse particulate organic matter; SAV = submerged aquatic vegetation

Storet G4NW0537 Field ID G4NW0537 Project: SMP / TMDL Studies
WBID 266A

SBIO ID: 84840

7. Put Pis in water. Buffer 718 must.

10. Avg. Buffer 3m. Not seen wall or mound
Start

1. Buffer > 10m

Paste map here and show location of each dredge drop and where water chemistry parameters were collected.

Station: Kings Lake
GPS Dec. 30.783556 x -86.18958
Storet: G4NW0537 WBID 266A
Sample ID: 84840 Macro ID: 12207
RQ-2022-06-20-43

Sampled : 06/15/2022
Sampled By: F.Butera, N. Mulkey
Location: Defuniak Springs, Walton
Receiving Waters: Yellow River
LIMS ID: 2336739

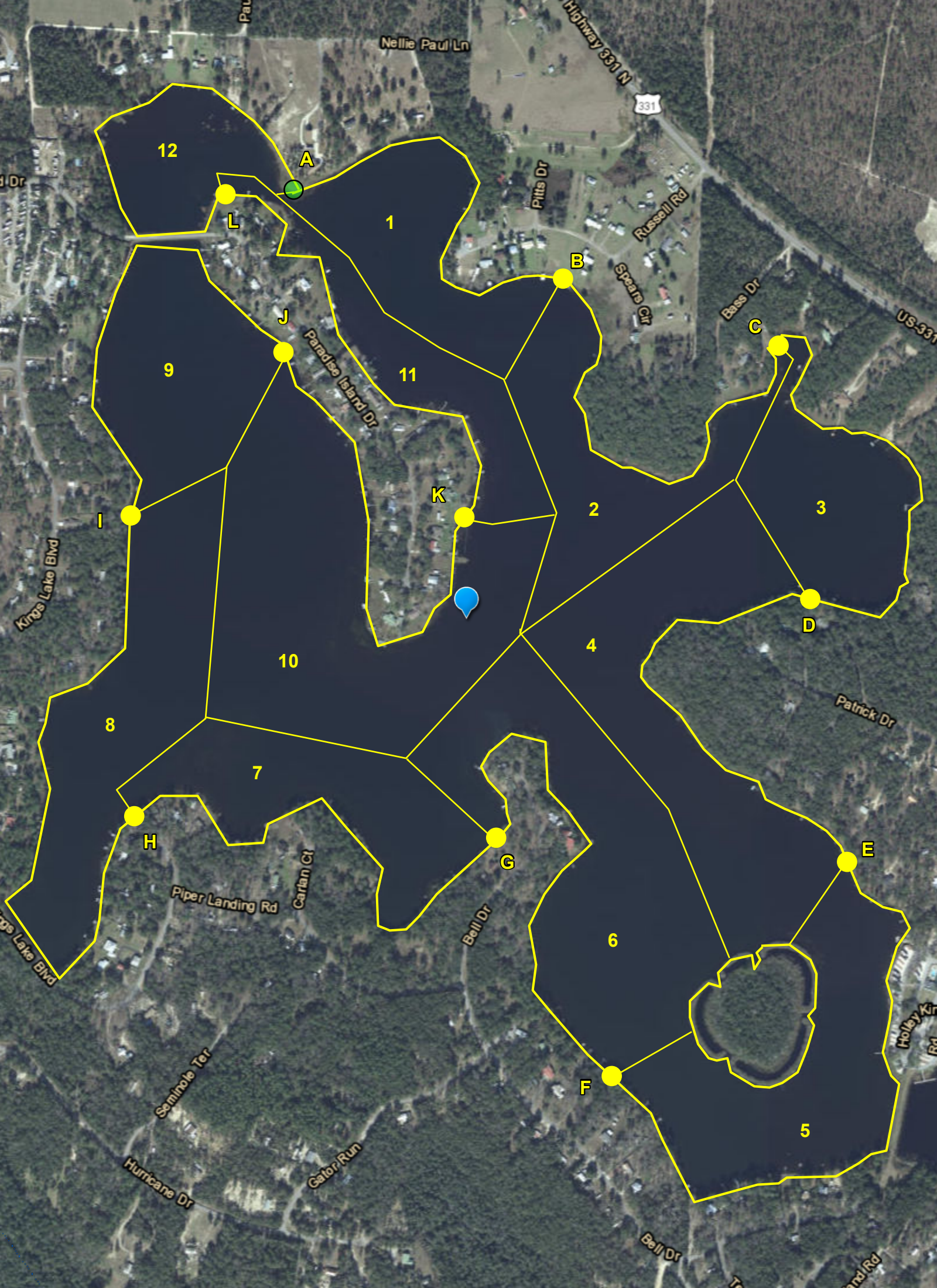
	Taxa	1	4	7	10	Coll.	Verified
1	<i>Acer rubrum</i>	1	1	1	1		
2	<i>Alternanthera philoxeroides</i>	1	1	1	1		
3	<i>Andropogon</i> sp.		1	1	1		
4	<i>Bacopa caroliniana</i>	D	D	D	D		
5	<i>Bidens alba</i>		1				
6	<i>Bidens mitis</i>	1	1	1	1		
7	<i>Boehmeria cylindrica</i>	1		1			
8	<i>Canna indica</i>			1			
9	<i>Centella asiatica</i>			1			
10	<i>Colocasia esculenta</i>			1	1		
11	<i>Cyperus odoratus</i>				1		
12	<i>Cyrilla racemiflora</i>	1	1	1	1		
13	<i>Eleocharis baldwinii</i>	1	1	1	1		
14	<i>Erechtites hieraciifolius</i>	1					
15	<i>Eriocaulon lineare</i>	1				Y	FB
16	<i>Eupatorium capillifolium</i>	1	1	1	1		
17	<i>Fuirena scirpoidea</i>				1		
18	<i>Hibiscus grandiflorus</i>	1					
19	<i>Hydrocotyle</i> sp.	1	1	1	1		
20	<i>Hypericum brachyphyllum</i>	1	1	1	1		
21	<i>Hypericum hypercoides</i>		1	1			
22	<i>Ipomoea aquatica</i>		1				
23	<i>Juncus effusus</i>	1	1	1	1		
24	<i>Juncus marginatus</i>	1		1			
25	<i>Juncus polycephalus</i>	1					
26	<i>Lachnanthes caroliniana</i>	1	1	1	1		
27	<i>Liquidambar styraciflua</i>	1		1			
28	<i>Ludwigia grandiflora</i>		1	1	1	Y	FB
29	<i>Ludwigia leptocarpa</i>			1			
30	<i>Ludwigia suffruticosa</i>			1			
31	<i>Lycopus</i> sp.	1		1	1		
32	<i>Magnolia virginiana</i>		1				
33	<i>Myrica cerifera</i>	1	1	1	1		
34	<i>Nymphoides cordata</i>	1	1	1	1		
35	<i>Osmunda cinnamomoea</i>		1				
36	<i>Panicum hemitomon</i>	1	1	1	1		
37	<i>Panicum repens</i>	1	1	1	1		
38	<i>Paspalum urvillei</i>	1	1	1	1		
39	<i>Pontederia cordata</i>			1			
40	<i>Rhexia mariana</i>	1	1	1			
41	<i>Rubus</i> sp.			1			
42	<i>Sacciolepis striata</i>	1	1	1	1		
43	<i>Salix caroliniana</i>	1					
44	<i>Sapium sebiferum</i>	1	1	1	1		
45	<i>Scirpus cyperinus</i>	1		1			
46	<i>Sesbania</i> sp.			1			
47	<i>Taxodium</i> sp.		1	1	1		
48	<i>Thelypteris palustris</i>		1				

49	<i>Triadenum virginicum</i>	1	1	1	1		
50	<i>Typha</i> sp.	1			1		
51	<i>Vitis</i> sp.	1	1	1	1		
52	<i>Woodwardia areolata</i>	1		1	1		
53	<i>Xyris</i> sp.	1	1	1	1		
	Taxa per section	32	29	38	28	Herb. Taxa	41
	Exotic Present	4	6	6	6	Woody Taxa	9
	Avg. taxa per section	33				Ferns	3
	sections with exotics	4				Macro Algae	0
	Exotic Taxa	7				Total Taxa	53
			Exotics per Section: 5.5				

Seen but not counted (Not approp. For LVI or Not in surveyed segment)

Taxon	Section	Section	Section	Section	Exclusion
<i>Albizia julibrissin</i>					Upland
<i>Catalpa bignonioides</i>					Upland
<i>Cortaderia selloana</i>	2	5			Not in surveyed section
Filamentous Green Algae	1	4	7	10	Not Vascular Plant
<i>Hedychium coronarium</i>					Not in surveyed section
<i>Magnolia grandiflora</i>					Upland
<i>Rhus copallinum</i>			7		Upland

Metric	Rep. 1	Rep. 2	Rep. 3	Rep. 4	LVI Average
LVI 2012	54	54	49	50	52
Native Percentage	88.24	83.87	80	82.76	83.72
FLEPPC Pct (Exotic)	5.88	9.68	7.5	10.34	8.35
Total Taxa	34	31	40	29	53
C of C over 7.0	2.94	9.68	5	6.9	6.13
Dominant Taxa	Bacopa caroliniana	Bacopa caroliniana	Bacopa caroliniana	Bacopa caroliniana	Bacopa caroliniana
C of C Dominant	4.5	4.5	4.5	4.5	4.50



Kings Lake

WIN ID	G4NW0537
Receiving Water	Narrows Creek
Basin / WBID	Yellow River / 266A
City, County	Defuniak Springs, Walton
Lake Acreage	350 acres / 141 Hectares
Circumference (M)	10423
Seg. Length (M)	869

Quadrant	Location	Dec. Latt.	Dec. Long.
11	Storet (G4NW0537)	30.783556	86.18958
1	A	30.79039	86.19275
	B	30.78898	86.18781
	C	30.78793	86.18388
4	D	30.78395	86.18329
	E	30.77981	86.18261
	F	30.77644	86.18692
7	G	30.78019	86.18904
	H	30.78053	86.19567
	I	30.75826	86.19573
10	J	30.78783	86.19294
	K	30.75230	86.18962
	L	30.79032	86.19400

Lake Area	Acreage	Circumference (M)
Whole Lake	359.6	11266
South Island	-9.76	-843
Net Area	349.84	10423